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IS TRANSESOPHAGEAL ECHOCARDIOGRAPHY STILL NECESSARY FOR THE ASSESSMENT OF INFECTIVE ENDOCARDITIS? AN EVALUATION OF A LARGE COHORT IN A TERTIARY REFERRAL CENTRE

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Sunday, April 03, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Echocardiography: 3-D, TEE, and Intracardiac Echo
Abstract Category: 32. Echocardiography: 3-D,TEE, and Intracardiac Echo
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Background: The diagnosis of infective endocarditis (IE) incorporates clinical and echocardiographic information. Guidelines for echo evaluation are largely based on data from the era of fundamental trans-thoracic echo (TTE) imaging, and recommend transesophageal echo (TEE) for definitive assessment of vegetations or tissue invasion (VG). We examined whether TEE provides significant incremental value in the assessment of endocarditis in the modern era using current imaging technologies.

Methods: We retrospectively evaluated all patients with a clinical suspicion of endocarditis referred for both TTE and TEE at our institution between January 2005 and September 2010. Patients were stratified by baseline TTE results "Normal TTE" = native valves with ≤trivial regurgitation and no VG; "Abnormal TTE/VG-" = prosthetic valve or ≥mild native valvular regurgitation, and no VG; "Abnormal TTE VG+" = vegetation detected.

Results: Of 615 consecutive patients (69% were males, average age 59) undergoing TTE and TEE for investigation of IE, VG was confirmed by TEE in 135 pts (22%). Of 237 patients with Normal TTE, TEE demonstrated VG in only 7 cases (NPV of Normal TTE=97%). Of 308 patients with Abnormal TTE/VG-, TEE demonstrated VG in 58 patients. Of the remaining 70 patients with Abnormal TTE VG+, TEE confirmed VG in all.

Conclusion: In a hospital based population with clinical suspicion of endocarditis, a completely normal TTE has a high negative predictive value, with minimal incremental value of performing TEE. However, in patients with an abnormal TTE but without visible VG, TEE provides significant incremental diagnostic value.